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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/779,869  | 02/08/2001  | Steven M. Horowitz   | 14531.79            | 6689             |
| 47973   | 7590        | 04/05/2005           | EXAMINER            |                  |
| WORKMAN NYDEGGER/MICROSOFT<br>1000 EAGLE GATE TOWER<br>60 EAST SOUTH TEMPLE<br>SALT LAKE CITY, UT 84111 |             |                      | SHANNON, MICHAEL R  |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2614                |                  |

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                   |                 |
|------------------------------|-------------------|-----------------|
| <b>Office Action Summary</b> | Application No.   | Applicant(s)    |
|                              | 09/779,869        | HOROWITZ ET AL. |
|                              | Examiner          | Art Unit        |
|                              | Michael R Shannon | 2614            |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

#### A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 27 October 2004.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-21 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-21 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 08 February 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments, see pages 9-13, filed 10/27/2004, with respect to the rejection(s) of claims 1 and 10 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,532,593 to Moroney in view of U.S. Patent No. 6,732,366 to Russo; independent system claim 17 under 35 U.S.C. 103(a) as being unpatentable over Moroney in view of U.S. Patent No. 6,442,328 to Elliott; and each of the remaining dependent claims under 35 U.S.C. 103(a) as being unpatentable over Moroney in view of either Russo or Elliott have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made regarding claims 1-20 over Barton et al (USPN 6,233,389), and regarding claim 21 over Barton in view of Elliott.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Barton et al (USPN 6,233,389), cited by examiner.

Regarding claim 1, the claimed “method for recording a first channel included in the programming content while displaying a second channel on the display device” is met as follows:

- The claimed step of “receiving the programming content at the set top box” is met by the Input Streams, which are received at the set top box [col. 2, lines 4-10].
- The claimed step of “tuning a first stream from the programming content with a tuner” is met by the tuning step discussed in column 3, lines 40-49.
- The claimed step of “demultiplexing the first stream with a transport to produce a first channel” is met by the disassembly step discussed in column 3, lines 40-49, which can disassemble the input stream to find programs in the multiplexed signal.
- The claimed step of “storing the first channel on a storage medium at the set top box prior to decoding the first channel with a decoder coupled to a transport output in order to store the first channel without degrading the first channel, wherein the transport output can be selectively decoupled from the decoder” is met by the ability to record the program onto the Hard Disk before the program is sent to the decoder [col. 4, lines 19-22]. The program is therefore stored in compressed, non-degraded, MPEG form. The claim that the transport output can be selectively decoupled from the decoder is met by the system’s ability to send a TV program to the Output Section 103 when watching real-time TV in order to decode the signal.

However, when a program is being viewed from the disk 105, the transport demultiplexor [col. 6, lines 30-34] is not needed to connect the disk 105 to the Decoder and is therefore, effectively decoupled from the Output Section 103 [col. 3, line 66 – col. 4, line 22].

- The claimed step of “retrieving a second channel from the storage medium” is met by the ability for the Media Switch 205 to allow the user to view a pre-recorded program from the disk [col. 4, lines 19-22].
- The claimed step of “decoding the second channel with the decoder while storing the first channel on the storage medium” is met by the ability for the system to simultaneously record one program and view another program that has been previously recorded on the disk [col. 4, lines 19-22] and the fact that the output from the Media Switch (and therefore the Hard Disk Storage Device) is sent to the decoder 715 for decoding before output to the television viewing device [col. 6, lines 63-65].
- The claimed step of “displaying the second channel on the display device without using the tuner” is met by the fact that the user can watch “another program” that is being extracted off of the disk with no use of the tuner [col. 4, lines 19-22 & col. 7, lines 5-7].

Regarding claim 2, the claimed “act of tuning further comprises the act of demodulating the first stream” is met by the tuner, which serves to ready the Input video signal for use on the base band frequency within the system [col. 3, lines 40-49].

Regarding claim 3, the claimed "act of tuning further comprises the act of demultiplexing the first stream to produce a channel" is met by the disassembly of the multiplexed stream to produce a program [col. 3, lines 40-49].

Regarding claim 4, the claimed "act of storing the first stream further comprises the act of storing a channel included in the first stream" is met by the ability to record one program, which has been extracted by the demultiplexor from the multiplexed stream [col. 3, lines 40-49 & col. 5, lines 19-22].

Regarding claim 5, the claimed "act of displaying a second stream further comprises the act of decoding the second stream" is met by the ability for the system to extract a previously recorded program from the disk and send it to the MPEG decoder 715 [col. 7, lines 5-7].

Regarding claim 6, the claimed "second stream comprises a channel that has been previously tuned by the tuner and stored on the storage medium" is met by the ability for the system to extract and decode a previously recorded program from the disk and send it to the MPEG decoder 715 [col. 7, lines 5-7].

Regarding claim 7, the claimed "first stream comprises a digital channel" is met by the television input streams in a multitude of forms (one of those forms being MPEG2 digital streams) [col. 3, lines 30-49].

Regarding claim 8, the claimed "act of storing the digital channel is conducted without performing any digital to analog conversion on the digital channel prior to storing the digital channel on the storage medium" is met by the fact that no digital-to-analog

conversion takes place in the Barton system, and the program is stored on Disk as a compressed, MPEG2 stream [col. 3, lines 66 – col. 4, line 22].

Regarding claim 9, the claimed “programming content is received from a transponder on a satellite” is met by the fact that the digital streams can be received from DSS or DBS service providers, which utilize satellites to communicate programming [col. 3, lines 35-36].

Regarding claim 10, the claimed “method for recording a channel included in the plurality of channels without degrading the channel” is met as follows:

- The claimed step of “tuning and demodulating the programming content to identify the plurality of channels” is met by the tuning step discussed in column 3, lines 40-49, which serves to ready the Input video signal for use on the base band frequency within the system.
- The claimed step of “demultiplexing the plurality of channels with a transport to select the channel, wherein the channel is digitally encoded” is met by the disassembly step discussed in column 3, lines 40-49, which can disassemble the input stream to find programs in the multiplexed signal and the discussion of the transport demultiplexor, which serves to extract the encoded MPEG2 stream from the plurality of channels [col. 6, lines 30-33].
- The claimed step of “recording the channel on a storage medium without decoding the channel with a decoder coupled to a transport output such that the recorded channel is not degraded, wherein the transport output

can be selectively decoupled from the decoder" is met by the ability to record the program onto the Hard Disk before the program is sent to the decoder [col. 4, lines 19-22]. The program is therefore stored in compressed, non-degraded, MPEG form. The claim that the transport output can be selectively decoupled from the decoder is met by the system's ability to send a TV program to the Output Section 103 when watching real-time TV in order to decode the signal. However, when a program is being viewed from the disk 105, the transport demultiplexor [col. 6, lines 30-34] is not needed to connect the disk 105 to the Decoder and is therefore, effectively decoupled from the Output Section 103 [col. 3, line 66 – col. 4, line 22].

- The claimed step of "retrieving a previously recorded channel" is met by the ability for the Media Switch 205 to allow the user to view a pre-recorded program from the disk [col. 4, lines 19-22].
- The claimed step of "decoding the previously recorded channel while recording the channel on the storage medium" is met by the ability for the system to simultaneously record one program and view another program that has been previously recorded on the disk [col. 4, lines 19-22] and the fact that the output from the Media Switch (and therefore the Hard Disk Storage Device) is sent to the decoder 715 for decoding before output to the television viewing device [col. 6, lines 63-65].

Regarding claim 11, the claimed “act of tuning and demodulating further comprises the act of selecting, by a user, the channel to be recorded” is met by the inherent channel selection and recording by the user through the discussion of the control that the user has over the system [col. 3, lines 18-29].

Regarding claim 12, the claimed “channel is compressed” is met by the MPEG2 compressed video channel that is received at the Input Section and consequently used throughout the system [col. 3, lines 30-49].

Regarding claim 13, the claimed “act of recording the channel further comprises the act of simultaneously displaying the channel on a display device” is met by the system’s ability to simultaneously display the channel and record the channel to the storage device [col. 3, line 66 – col. 4, line 2].

Regarding claim 14, the claimed “act of displaying the channel further comprises the act of decoding the channel with a decoder, wherein the decoder produces video output and audio outputs” is met by the Media Switch’s ability to retrieve a channel from the Input Section or the Hard Disk and consequently decode and display the channel [col. 6, line 63 – col. 7, line 7].

Regarding claim 15, the claimed steps of “decoding a second channel already recorded on the storage medium while the channel is recording on the storage medium” and “displaying the second channel, wherein the second channel is not tuned by the system when the second channel is displayed” are met by the ability for the system to extract a previously recorded program from the disk and send it to the MPEG decoder

715 [col. 7, lines 5-7] without the need for the tuner, since the tuner is being used to record a current program [col. 4, lines 19-22].

Regarding claim 16, the claimed “programming content is tuned and demodulated in a set top box having a tuner and a demodulator, wherein the programming content is received from a transponder of a satellite” is met by the Input Section (which inherently, through the teaching in column 3, lines 30-49, has a tuner and demodulator [see above]) and the fact that the digital streams can be received from DSS or DBS service providers, which utilize satellites to communicate programming [col. 3, lines 35-36].

Regarding claim 17, the claimed “device for recording a selected channel included in the programming content without degrading the selected channel” is met as follows:

- The claimed “tuner that tunes the programming content to a plurality of channels included in the programming content” is met by the tuning step discussed in column 3, lines 40-49, which serves to ready the Input video signal for use on the base band frequency within the system.
- The claimed “demodulator that demodulates the plurality of channels tuned by the tuner” is met by the same tuning step discussed in column 3, lines 40-49, which serves to ready the Input video signal for use on the base band frequency within the system.
- The claimed “transport, wherein the transport receives the plurality of channels demodulated by the demodulator and demultiplexes the plurality

of channels to produce the selected channel at a transport output that is connected to a decoder, wherein the transport output can be selectively decoupled from the decoder" is met by the MPEG2 Transport Demultiplexor [col. 6, lines 30-33]. The decoder is met by the MPEG2 decoder 715 [col. 6, lines 63-65]. The claim that the transport output can be selectively decoupled from the decoder is met by the system's ability to send a TV program to the Output Section 103 when watching real-time TV in order to decode the signal. However, when a program is being viewed from the disk 105, the transport demultiplexor [col. 6, lines 30-34] is not needed to connect the disk 105 to the Decoder and is therefore, effectively decoupled from the Output Section 103 [col. 3, line 66 – col. 4, line 22].

- The claimed "storage medium for receiving and recording the selected channel when the transport is decoupled from the decoder such that the selected channel is recorded on the storage medium without degrading the selected channel" is met by the ability to record the program onto the Hard Disk 105 before the program is sent to the decoder [col. 4, lines 19-22]. The program is therefore stored in compressed, non-degraded, MPEG form.

Regarding claim 18, the claimed "selected channel being recorded is included in the plurality of channels tuned by the tuner" is met by ability for the system to record a currently tuned program [col. 4, lines 19-22].

Regarding claim 19, the claimed "decoder is connected to the storage medium such that a recorded channel may be decoded and displayed on a display device while the selected channel is recorded on the storage medium" is met by the ability for the system to extract and decode a previously recorded program from the disk and send it to the MPEG decoder 715 [col. 7, lines 5-7], while at the same time recording a currently tuned program to the storage disk [col. 4, lines 19-22].

Regarding claim 20, the claimed "transport simultaneously directs the selected channel to both the storage medium and the decoder" is met by the system's ability to simultaneously display the channel and record the channel to the storage device [col. 3, line 66 – col. 4, line 2].

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barton et al (USPN 6,233,389), cited by examiner, in view of Elliott (USPN 6,442,328), previously cited by examiner.

Regarding claim 21, the Barton reference discloses all of that which is discussed above with regards to claim 17. The Barton reference does not expressly disclose a "conditional access system determining whether the device may display the selected channel". Elliott discloses a conditional access module114 [Fig. 2] for use in

determining whether the device may display the selected channel. At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize the conditional access module taught by Elliott, in order to deny/allow use of certain special and pre-authorized channels by the user.

***Claim Rejections - 35 USC § 112***

6. Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
7. Claim 5 recites the limitation "a second stream" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 6 recites the limitation "the second stream" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Shannon whose telephone number is (571) 272-7356. The examiner can normally be reached Monday through Friday 8:00 AM – 5:00PM, with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached at (571) 272-7353.

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Knox Building  
501 Dulany Street  
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is (571)  
**272-2600.**

Michael R Shannon  
Examiner  
Art Unit 2614

Michael R Shannon  
March 29, 2005



JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600